Iotrolan Liposome Product Candidate
Summary of CT Results in Rats

Lipid Components	t in hours	n	HU above Baseline in Liver: 250 mg/ Kg I	HU above Baseline in Liver: 100 mg/ Kg I	Lot#	I:L
DSPC	1	3	91	44	FMF04293	4.7
DSPC/	1	3	52	31	SM10A1693	5.7
DPPE-GA	1	3	43	26	FMJ0693	6.2
(10 mole %)	1	3	42	27	FMK1193	6.0
	1	3	50	31	FML1093	6.3
	3	4	56	not done	SM10A1693	5.7
DSPC/	1	3	58	35	SM5A1693	5.9
DPPE-GA	3	3	72	not done	SM5A1693	5.9
(5 mole %)						

What is claimed is:

1. A method of reducing a blood pressure decrease associated with the administration of a liposome to an animal which comprises incorporating a surface agent-modifying lipid comprising a phosphatidylethanolamine conjugated to a dicarboxylic acid into a liposome such that the surface agent-modifying lipid comprises at least about 2 mole percent of the lipid component of the liposome's bilayer and then administering the liposome to the animal wherein an anti-inflammatory agent is administered to the animal prior to administration of the liposome composition and wherein the liposome has an average diameter of from at least about 200 nm to about 5000 nm.

2. The method of claim 1, wherein the anti-inflammatory agent is a steroid.

3. The method of claim 1, wherein the anti-inflammatory agent is a nonsteroidal anti-inflammatory agent.

4. The method of claim 3, wherein the nonsteroidal anti-inflammatory agent is indomethacin.

5. The method of claim 1, wherein the agent is administered to the animal by intravenous or intra-arterial administration.

6. The method of claim 1, wherein the anti-inflammatory agent is administered at most about 30 minutes prior to administration or the liposome composition.

7. The method of claim 1, wherein the liposome has an average diameter of from about 400 nm to about 1000 nm.

8. The method of claim 1, wherein the liposome is unilamellar.

9. The method of claim 1, wherein the concentration of surface agent modified molecule in the bilayer is at least about 10 mole percent.

10. The method of claim 1, wherein the dicarboxyclic acid is succinic acid, glutaric acid, adipic acid, bimelic acid, tartaric acid, mucic acid, tetrafluorosuccinic acid, or hexafluoroglutaric acid.

11. The method of claim 10, wherein the dicarboxylic acid is glutaric acid.

12. The method of claim 1, wherein the phosphatidylethanoramine is dipalmitoyl phosphatidylethanolamine.

13. The method of claim 1, wherein the surface agent-modifying lipid further comprises a functional group capable of attaching to the glycerol backbone of the phosphatidylethanolamine and a functional group capable of attaching to the phosphate group of the phosphatidyethanolamine.

14. The method of claim 12, wherein the functional group is an hydroxyl, thiol epoxide or amine group.

15. The method of claim 1, wherein the liposome comprises a bioactive agent.

16. The method of claim 15, wherein the bioactive agent is a contrast agent, antibacterial agent, antiviral agent, antifungal agent, anti-parasitic agent, tumoricidal agent, antimetabolite, carbohydrate, polypeptide, peptide, protein, toxin, enzyme, hormone, neurotransmitter, glycoprotein, lipoprotein, immunoglobulin, immunomodulator, vasodilator, dye, radiolabel, radio-opaque compound, fluorescent compound, receptor binding molecule, anti-inflammatory agent, mydriatic compound, local anesthetic, narcotic, vitamin, nucleic acid, polynucleofide, nucleoside, nucleotide, MRI, radio or a water soluble iodinated contrast agent.

17. The method of claim 1, wherein the bioactive agent is a water-soluble iodinated contrast agent selected from the group consisting of iohexol iopamidol, ioxoglate, iotrolan, ioversol, iothalamate, iodimide, iodipamide, iopromide, metrizamide, iopentol, iodixanol, diatrizoate, or iotroxic acid.

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18. A method of treating an animal with a bioactive agent comprising administering to said animal an anti-inflammatory agent and a liposome composition, wherein said liposome composition induces an adverse physiological reaction in said animal; and reducing said adverse physiological reaction.

19. The method of Claim 18, wherein said adverse physiological reaction is a blood pressure drop.

20. The method of Claim 19, wherein the anti-inflammatory agent is indomethacin.

21. The method of Claim 18, wherein the anti-inflammatory agent is a steroid.

22. The method of Claim 18, wherein the anti-inflammatory agent is non-steroidal.

23. A method of treating an animal with a bioactive agent comprising administering to said animal a composition comprising a liposome and an anti-inflammatory agent, wherein said liposome composition induces an adverse physiological reaction in said animal; and reducing said adverse physiological reaction.

24. A method of treating an animal to reduce adverse physiological reaction in said animal, comprising administering to said animal a composition comprising a liposome and a bioactive agent; wherein said liposome composition induces an adverse physiological reaction in said animal; administering an anti inflammatory agent, to said animal; and reducing said adverse physiological reaction.

25. A liposome composition comprising a liposome and a bioactive agent which is an anti-inflammatory agent.

26. The composition of Claim 25, wherein the anti-inflammatory agent is indomethacin.

27. The composition of Claim 25, wherein the anti-inflammatory agent is a steroid.

28. The composition of Claim 25, wherein the anti-inflammatory agent is non-steroidal.

29. A liposome composition comprising a liposome and a bioactive agent which is a contrast agent, in combination with an anti-inflammatory agent.

30. The composition of Claim 29, wherein the anti-inflammatory agent is indomethacin.

31. The composition of Claim 29, wherein the anti-inflammatory agent is a steroid.

32. The composition of Claim 29, wherein the anti-inflammatory agent is non-steroidal.

33. The composition of claim 25, wherein the liposome comprises a lipid bilayer having a lipid and a surface agent-modified ~~molecule~~ which comprises an anchor and a surface agent modified molecule, wherein the anti-inflammatory agent is administered to the animal prior to administration of the liposome composition and wherein the liposome has an average diameter of from at least about 220 nm to about 5000 nm.

34. The composition of claim 25, wherein the liposome has an average diameter of from about 400 nm to about 1000 nm.

35. The composition of claim 25, wherein the liposome is unilamellar.

36. The composition of claim 25, wherein the concentration of surface agent modified molecule in the bilayer is at least about 2 mole percent.

37. The composition of claim 25, wherein the surface modifying agent is a dicarboxylic acid, a monocarboxylic acid or a sulfolipid.

38. The composition of claim 25, wherein the surface modifying agent is a dicarboxylic acid.

39. The composition of claim 38, wherein the dicarboxylic acid is a succinic acid, glutaric acid, adipic acid, pimelic acid, tartaric acid, mucic acid, tetraflurosuccinic acid, or hexafluoroglutaric acid.

40. The composition of claim 39, wherein the dicarboxylic acid is glutaric acid.

41. The composition of claim 25 wherein the anchor is a phosphatidylethanolamine.

42. The composition of claim 41, wherein phosphatidylethanolamine is dipalmitoyl phosphatidylethanolamine.

43. The composition of claim 25, wherein the surface agent modified molecule comprises a phospholipid anchor having a glycerol anchor and a spacer group and wherein the spacer group comprises a functional group capable of attaching to the glycerol backbone and a functional group capable of attaching to the phosphate group of the phospholipid anchor.

44. The composition of claim 43, wherein the functional group is an hydroxyl, thiol epoxide or amine group.